

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
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MERCHANTS & GOULD P.C.
P.O. BOX 2903
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PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing
(day/month/year) **31 JAN 2005**

Applicant's or agent's file reference

IMPORTANT NOTIFICATION

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US03/38822

05 December 2003 (05.12.2003)

06 December 2002 (06.12.2002)

Applicant

DONALDSON COMPANY, INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Mail Stop PCT, Attn: IPEA/ US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Duane S. Smith

Telephone No. 571-272-0987

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|--|---|
| TO: STEVEN C. BRUESS MERCHANT & GOULD P.C. P.O. BOX 2903 MINNEAPOLIS, MINNESOTA 55402-0903 | UNITED STATES DESIGNED/ELECTED OFFICE (DO/EO/US) NOTIFICATION OF STATUS OF REQUIREMENTS UNDER 35 U.S.C. 371 |
| | DATE OF MAILING <i>(day/month/year)</i> <div style="text-align: right;">13 Feb 2004</div> |
| | FILE REFERENCE <div style="text-align: right;">758.1472WO11</div> |
| IDENTIFICATION OF INTERNATIONAL APPLICATION | |
| International application No. <div style="text-align: center;">PCT/US03/38822</div> | International filing date <i>(day/month/year)</i> <div style="text-align: center;">05 Dec 2003</div> |
| Priority Date Claimed <div style="text-align: center;">06 Dec 2002</div> | |
| Applicant for DO/EO/US <div style="text-align: center;">READ, BRIAN</div> | |
| NOTIFICATION | |
| <p>The applicant is hereby advised that the U.S. Patent and Trademark Office in its capacity as <input checked="" type="checkbox"/> Designated Office <input type="checkbox"/> Elected Office has received following items as of the date of mailing indicated above.</p> <ol style="list-style-type: none"> 1. <input type="checkbox"/> U.S. Nation fee [35 U.S.C 371 (c) (1)] 2. <input type="checkbox"/> Oath of declaration [35 U.S.C 371 (c) (4)] 3. <input checked="" type="checkbox"/> Copy of International application as [35 U.S.C 371 (c) (2)] 4. <input type="checkbox"/> Translation of Application [35 U.S.C 371 (c) (2)] 5. <input type="checkbox"/> Amendments under PCT Article 19 [35 U.S.C 371 (c) (3)] 6. <input type="checkbox"/> Translation of PCT Article 19 Amendments [35 U.S.C 371 (c) (3)] 7. <input type="checkbox"/> Search Report or Declaration under PCT Article 17(2) [35 U.S.C 371 (a)] 8. <input type="checkbox"/> International Preliminary Examination Report and its Annexes, if any, under PCT Article 36(3)(b) [35 U.S.C 371 (a)] 9. <input type="checkbox"/> Translation of Annexs to the International Preliminary Examination Report under PCT Article 36(3)(b) [35 U.S.C 371 (c) (5)] 10. <input type="checkbox"/> Other items received: <div style="margin-left: 20px;"> <input type="checkbox"/> Assignment Document <input type="checkbox"/> Prior Art Statement <input type="checkbox"/> Preliminary Amendment </div> <p>A. <input type="checkbox"/> Requirements for U.S. National processing have been met. Processing will commence</p> <div style="margin-left: 20px;"> <input type="checkbox"/> at the expiration of the applicable time limit under either <div style="margin-left: 20px;"> <input type="checkbox"/> PCT Article 22 [35 U.S.C 371 (b)] or <input type="checkbox"/> PCT Article 39 [35 U.S.C 371 (b)] </div> <input type="checkbox"/> on the date indicated below under the provisions of 35 U.S.C 371 (f) </div> | |
| U.S. NATIONAL SERIAL# | DATE UNDER 35 U.S.C. 102(e) |
| DATE OF COMMENCEMENT OF NATIONAL PROCESSING | |
| <p><i>All correspondence submitted after the date of commencement of U.S. National processing indicated above should refer to the U.S. National Serial Number and the appropriate U.S. National processing organization of Officer.</i></p> <p>B. <input type="checkbox"/> As the above identified application has been accepted for U.S. National processing under the provision of 35 U.S.C. 371 (f) before expiration of the applicable time limit under <input type="checkbox"/> PCT Article 22 <input type="checkbox"/> PCT Article 39, applicant is reminded that</p> <div style="margin-left: 20px;"> <input type="checkbox"/> Amendments under PCT Article 19 and/or <input type="checkbox"/> the International Preliminary Examination Report and its Annexes, if any, under PCT Article 36(3) (a), and (b) and any translation thereof, if applicable, must be submitted to the Patent and Trademark Office as soon as they are available. </div> | |

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

| | | | |
|---|--|--|---|
| Applicant's or agent's file reference 758.1472WO11 | FOR FURTHER ACTION | | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |
| International application No. PCT/US03/38822 | International filing date (<i>day/month/year</i>) 05 December 2003 (05.12.2003) | Priority date (<i>day/month/year</i>) 06 December 2002 (06.12.2002) | |
| International Patent Classification (IPC) or national classification and IPC IPC(7): B01D 46/00,50/00 and US Cl.: 095/268; 055/319,320,337 | | | |
| Applicant DONALDSON COMPANY, INC. | | | |


1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of ___ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

| | |
|--|--|
| Date of submission of the demand 29 June 2004 (29.06.2004) | Date of completion of this report 19 January 2005 (19.01.2005) |
| Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230 | Authorized officer Duane S. Smith  Telephone No. 571-272-0987 |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/38822

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
 pages 1-25 _____ as originally filed
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____.
- ☒ the claims:
 pages 26-29 _____, as originally filed
 pages NONE _____, as amended (together with any statement) under Article 19
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____.
- ☒ the drawings:
 pages 1-11 _____, as originally filed
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____.
- ☐ the sequence listing part of the description:
 pages NONE _____, as originally filed
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/388**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

| | | |
|-------------------------------|---------------|-----|
| Novelty (N) | Claims 1-20 | YES |
| | Claims NONE | NO |
| Inventive Step (IS) | Claims 4-19 | YES |
| | Claims 1-3,20 | NO |
| Industrial Applicability (IA) | Claims 1-20 | YES |
| | Claims NONE | NO |

2. CITATIONS AND EXPLANATIONS

Claims 1-3,20 lack an inventive step under PCT Article 33(3) as being obvious over either Read(US Patent No. 6,136,076) or Linnersten et al(US Patent No. 6,485,535).

Read teaches a gas/liquid separator(10) including a vessel(10) having an outer wall(11), a gas flow inlet(19) and a lower sump(12); prepreparation assembly including a radially continuous axial shroud(14), and a mounting space for a separator element(16). Read does not disclose the axial shroud extending along a distance of 20-60% of the axial length of the mounting space. However, the mere optimization of distance to provide increased efficiency of separation of liquid from the gas is well within the scope of one of ordinary skill in the art. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, applicant must show that the chosen dimensions are critical. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the axial length of the shroud of Read in order to enhance the separation efficiency of the gas inlet flow.

Linnersten et al teaches a gas/liquid separator(10) including a vessel having an outer wall(11), a gas flow inlet(17) and a lower sump(12); prepreparation assembly including a radially continuous axial shroud(20), a mounting space for a separator element(21). Linnersten et al does not disclose the axial shroud extending along a distance of 20-60% of the axial length of the mounting space. However, the mere optimization of distance to provide increased efficiency of separation of liquid from the gas is well within the scope of one of ordinary skill in the art. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, applicant must show that the chosen dimensions are critical. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the axial length of the shroud of Linnersten et al in order to enhance the separation efficiency of the gas inlet flow.

Claims 4-19 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed features of dependent claims 4-19 in combination with the features of the independent claim and any intervening claims.

Claims 1-20 the criteria set out in PCT Article 33(4), and thus the gas/liquid separator has industrial applicability because the subject matter claimed can be made or used in industry.